

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims

Claims 1-20. (Canceled)

Claim 21. (Currently Amended) A process for drying, separating, classifying, and decomposing waste products from at least one of a waste degassing and gasification process, comprising:

introducing solid waste products and waste gases wholly or partially in a funnel-shaped lower part of a shaft-shaped chamber[[, and]] ;

at least one of simultaneously and subsequently introducing air and the waste gases from the degassing and/or gasification process separately into the chamber from below under pressure;[[,]]

introducing the air is introduced into the chamber substantially axially and introducing the waste gases are introduced into the chamber substantially tangentially, resulting in a rotationally symmetrical, fountaining eddying of the solid and gaseous substances in the chamber, the air is introduced in a truncated-cone-shaped floor of the chamber axially through a round, double-walled part of a discharge shaft and, in an area of the truncated-cone-shaped floor of the chamber, one or two truncated-cone-shaped components nested one inside another form one or two annular gaps that can be displaced with respect to one another and to the chamber floor so that the air is introduced axially

through an annular gap and the waste gases are introduced tangentially through another annular gap; and[[.]]

, subsequently or during continuous processing, downwardly discharging dried, separated, classified, and substantially decomposed products ~~are downwardly discharged~~ from the chamber.

Claim 22. (Previously Presented) The process according to Claim 21, wherein the substantially decomposed products comprise recoverable waste products comprising coke, ash, hydrocarbons, CO₂, CO, H₂, H₂O.

Claim 23. (Canceled)

Claim 24. (Previously Presented) The process according to Claim 21, wherein the air is at least one of preheated and introduced into the chamber under a pressure of 6-8 kPa.

Claim 25. (Previously Presented) The process according to Claim 21, wherein the waste gases are introduced tangentially through openings in the funnel-shaped part of the chamber so that the gases encounter the introduced air in an area of the solids.

Claim 26. (Previously Presented) The process according to Claim 21, wherein the waste gases are introduced into the chamber under a pressure of 6-8 kPa.

Claim 27. (Canceled)

Claim 28. (Previously Presented) The process according to Claim 22, wherein the air is at least one of preheated and introduced into the chamber under a pressure of 6-8 kPa.

Claim 29. (Canceled)

Claim 30. (Previously Presented) The process according to Claim 22, wherein the waste gases are introduced tangentially through openings in the funnel-shaped part of the chamber so that the gases encounter the introduced air in an area of the solids.

Claim 31. (Canceled)

Claim 32. (Previously Presented) The process according to Claim 24, wherein the waste gases are introduced tangentially through openings in the funnel-shaped part of the chamber so that the gases encounter the introduced air in an area of the solids.

Claim 33. (Previously Presented) The process according to Claim 22, wherein the waste gases are introduced into the chamber under a pressure of 6-8 kPa.

Claim 34. (Canceled)

Claim 35. (Previously Presented) The process according to Claim 24, wherein the waste gases are introduced into the chamber under a pressure of 6-8 kPa.

Claim 36. (Previously Presented) The process according to Claim 25, wherein the waste gases are introduced into the chamber under a pressure of 6-8 kPa.

Claim 37. (Canceled)

Claim 38. (Previously Presented) The process according to Claim 21, comprising regulating air- and waste gas flow rate.

Claim 39. (Canceled)

Claim 40. (Currently Amended) The process according to Claim ~~[[39]]~~ 21, comprising regulating air- and/or waste gas flow rates by changing annular gap size.

Claim 41. (Previously Presented) The process according to Claim 21, wherein the chamber is cylindrical, and initiating reaction in a start-up condition with a pilot burner arranged in the chamber, and ensuring constant maintenance of the reaction in an operating condition.

Claims 42-52 (Canceled)

Claim 53. (Currently Amended) A process for drying, separating, classifying, and decomposing waste products from at least one of a waste degassing and gasification process, comprising:

introducing solid waste products and waste gases wholly or partially in a funnel-shaped lower part of a shaft-shaped chamber; [[, and]]

at least one of simultaneously and subsequently introducing air and the waste gases from the degassing and/or gasification process separately into the chamber from below under pressure; [[,]]

introducing the air is introduced into the chamber substantially axially and introducing the waste gases are introduced into the chamber substantially tangentially or radially, resulting in a rotationally symmetrical, fountaining eddying of the solid and gaseous substances in the chamber, the air is introduced in a truncated-cone-shaped floor of the chamber axially through a round, double-walled part of a discharge shaft and, in an area of the truncated-cone-shaped floor of the chamber, one or two truncated-cone-shaped components nested one inside another form one or two annular gaps that can be displaced with respect to one another and to the chamber floor so that the air is introduced axially

through an annular gap and the waste gases are introduced tangentially through another annular gap; and[[,]]

subsequently or during continuous processing, downwardly discharging dried, separated, classified, and substantially decomposed products ~~are downwardly discharged~~ from the chamber.

Claim. 54 (Canceled)